

CLAIMS

What is claimed is:

1. A system for writing position information to a rotating medium, comprising:

5 a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

 a write element capable of writing information to the rotatable medium; and

10 a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

 write at least a portion of a first servo burst during a first pass of a write element over a rotating medium;

15 trim at least a portion of a first servo burst during a second pass of the write element; and

 write at least a portion of a second servo burst during one of the second pass and a third pass of the write element, the pass used to write at least a portion of the second servo burst being determined by the location of the second servo burst relative to at least one of the inner diameter and outer diameter.

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2. A system according to claim 1, wherein:

25 at least a portion of a second servo burst is written on the third pass only if the second burst defines a data track centerline.

3. A system according to claim 1, wherein:

 the number of portions used to write the second burst increases toward the outer diameter.

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4. A system according to claim 1, wherein:

the rotatable medium is selected from the group consisting of magnetic disks, optical disks, and laser-recordable disks.

5. A system according to claim 1, wherein:

each of the first portion and second portion comprises a servo burst.

6. A system according to claim 1, further comprising:

a read element adapted to read the first servo burst and second servo burst on a subsequent pass over the rotatable medium.

7. A system according to claim 6, further comprising:

a read/write head containing the read element and the write element.

8. A system according to claim 7, further comprising:

read circuitry adapted to accept information from the read element and determine the position of the read/write head.

9. A system according to claim 1, wherein:

the write element is further capable of trimming a portion of the first servo burst such that the first servo burst has a width approximately equal to the width of a track of servo data.

10. A system according to claim 1, wherein:

the write element is further capable of writing the first and second servo bursts in a servo wedge on the rotatable storage medium.

11. A system according to claim 1, wherein:

the write element is further capable of trimming an edge of the first servo burst and writing an adjacent edge of the second servo burst in order

to define the position of a centerline of a data track on the rotatable storage medium.

12. A system according to claim 1, wherein:

5 the write element writes at least a portion of the second servo burst before trimming at least a portion of the first servo burst.

13. A system for writing position information to a rotating medium, comprising:

10 a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

 a write element capable of writing information to the rotatable medium; and

15 a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

 write a plurality of servo tracks to a rotatable storage medium, wherein the position of each servo track is defined by an edge of a first servo burst and a complimentary edge of a second burst, and wherein the first servo burst is written in a first revolution of the rotatable storage medium, and the first burst is trimmed on a second revolution, the second servo burst also being written on the second revolution; and

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 write a plurality of data tracks to a rotatable storage medium, wherein the position of each data track is defined by an edge of a third servo burst and a complimentary edge of a fourth servo burst, and wherein the third servo burst is written in a third revolution of the rotatable storage medium, the third servo burst is

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trimmed in a fourth revolution, and at least a portion of the fourth servo burst is written in one of the fourth revolution or a subsequent revolution, the pass used to write at least a portion of the fourth servo burst being determined by the location of the fourth servo burst relative to at least one of the inner diameter and outer diameter.

14. A system for writing position information to a rotating medium, comprising:

a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

a write element capable of writing information to the rotatable medium; and

a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

write a plurality of servo tracks to a rotatable storage medium, wherein the position of each servo track is defined by an edge of a first servo burst and a complimentary edge of a second burst, and wherein the first servo burst is written in a first revolution of the rotatable storage medium, and at least a portion of the first burst is trimmed on a second revolution, the second servo burst being written in one of the second revolution or a subsequent revolution, the pass used to write at least a portion of the second servo burst being determined by the location of the second servo burst relative to at least one of the inner diameter and outer diameter; and

5 write a plurality of data tracks to a rotatable storage medium,
wherein the position of each data track is defined by
an edge of a third servo burst and a complimentary
edge of a fourth servo burst, and wherein the third
servo burst is written in a third revolution of the
rotatable storage medium, the third servo burst is
trimmed in a fourth revolution, and at least a portion
of the fourth servo burst is written in one of the fourth
revolution or a subsequent revolution, the pass used
10 to write at least a portion of the fourth servo burst
being determined by the location of the fourth servo
burst relative to at least one of the inner diameter and
outer diameter.

15 15. A system for writing position information to a magnetic hard disk,
comprising:

means for writing at least a portion of a first servo burst during a first
pass of a write element over a rotating medium;

20 means for trimming at least a portion of a first servo burst during a
second pass of the write element; and

means for writing at least a portion of a second servo burst during
one of the second pass and a third pass of the write element, the pass
used to write at least a portion of the second servo burst being determined
by the location of the second servo burst relative to at least one of the inner
25 diameter and outer diameter.